Gasotransmitters in Plants : The Rise of a New Paradigm in Cell Signaling /

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Springer International Publishing :
Imprint: Springer,
2016

Libros electrónicos | Recursos electrónicos

Monografía

This book describes the three gasotransmitters nitric oxide (NO), hydrogen sulphide (H2S) and carbon monoxide (CO) and their function as intracellular signalling molecules in plants. Common properties are shared by NO, H2S and CO: they are beneficial at low concentrations but hazardous in higher amounts; they are small molecules of gas; they can freely cross cell membranes; their effects do not rely on receptors; they are generated enzymatically and their production is regulated; their functions can be mimicked by exogenous application; and their cellular effects may or may not be mediated by second messengers, but have specific cellular and molecular targets. In plants, many aspects of the biology of gasotransmitters remain completely unknown and generate intriguing questions, which will be discussed in this book

Título: Gasotransmitters in Plants The Rise of a New Paradigm in Cell Signaling edited by Lorenzo Lamattina, Carlos García-Mata

Editorial: Cham Springer International Publishing Imprint: Springer 2016

Descripción física: 1 recurso en línea XII, 335 p. 57 illus., 48 illus. in color

Mención de serie: Signaling and Communication in Plants 1867-9048 Springer eBooks

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plants: the role of S-nitrosoglutathione reductase -- Hydrogensulfide in plants -- Regulation of autophagy by hydrogen sulfide -- Deciphering the dialogue between NO and H2S in guard cells -- New features of the NO/H2S crosstalk: a chemical basis

Detalles del sistema: Modo de acceso: World Wide Web

ISBN: 9783319407135

Materia: Life sciences Plant biochemistry Cell physiology Plant pathology Plant physiology Life Sciences Plant Physiology Plant Biochemistry Cell Physiology Plant Pathology

Autores: Lamattina, Lorenzo., editor García-Mata, Carlos., editor

Entidades: SpringerLink (Online service)

Punto acceso adicional serie-Título: Signaling and Communication in Plants 1867-9048

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